

WHAT IS CLAIMED IS:

1. An optical disc apparatus usable for an optical disc including a bar code area and a control data area adjacent to the bar code area in a radial direction of the optical disc, the optical disc apparatus comprising:

an optical head for directing an optical beam toward the optical disc so as to form an optical spot on the optical disc and output a signal in accordance with the optical beam reflected by the optical disc;

a bar code area determination section for determining whether or not the optical spot is positioned on the bar code area of the optical disc based on the signal output by the optical head; and

a control section for controlling the optical head so that the optical spot moves toward the control data area, when the optical spot is determined to be positioned on the bar code area.

2. An optical disc apparatus according to claim 1, wherein the optical disc further includes a recording and reproduction area on which the optical head records a signal.

3. An optical disc apparatus according to claim 1, further comprising:

a control data area determination section for determining whether or not the optical spot is positioned on the control data area of the optical disc, and

an address detection section for detecting an address representing a position of the optical spot on the control data area based on the signal output by the optical head, when the optical spot is determined to be positioned on the control data area,

wherein the control section controls movement of the optical head based on the address detected by the address detection section.

4. An optical disc apparatus according to claim 1, further comprising:

a control data area determination section for determining whether or not the optical spot is positioned on the control data area of the optical disc,

wherein the control section controls the optical head so that the optical spot moves toward the control data area until the optical spot is determined to be on the control data area.

5. An optical disc apparatus according to claim 1, wherein:

a maximum cycle of cycles of the signal output by the optical head in accordance with the optical beam in the case where the optical beam is reflected by the control data area of the optical disc is set as a set cycle,

a cycle of a signal output by the optical head in accordance with the optical beam in the case where the optical beam is reflected by the bar code area of the optical disc is longer than the set cycle, and

the bar code area determination section includes:

a maximum cycle detection section for detecting the maximum cycle of the signal output by the optical head, and

a cycle comparison section for comparing the maximum cycle detected by the maximum cycle detection section and the set cycle, so as to determine whether or not the optical spot is positioned on the bar code area.

6. An optical disc apparatus according to claim 5, wherein when the maximum cycle detected by the maximum cycle

detection section is sufficiently larger than the set cycle, the cycle comparison section determines that the optical spot is positioned on the bar code area.

7. An optical disc apparatus according to claim 1, wherein the bar code area determination section includes:

a maximum cycle detection section for detecting a maximum cycle of cycles of the signal output by the optical head,

a read clock cycle detection section for detecting a read clock cycle of the signal output by the optical head, and

a cycle comparison section for comparing a ratio between the maximum cycle detected by the maximum cycle detection section and the read clock cycle detected by the read clock cycle detection section, with a set clock coefficient set for the signal in accordance with the optical beam in the case where the optical beam is reflected by the bar code area of the optical disc, so as to determine whether or not the optical spot is positioned in the bar code area.

8. An optical disc apparatus according to claim 7, wherein the read clock cycle detection section includes:

a minimum mark length detection section for detecting a minimum mark length of a signal read from the optical disc; and

a read clock cycle deriving section for deriving a read clock cycle based on the minimum mark length detected by the minimum mark length detection section and a prescribed coefficient of the minimum mark length.

9. An optical disc apparatus according to claim 1, wherein the bar code area determination section includes:

a maximum cycle detection section for detecting a maximum cycle of cycles of the signal output by the optical head,

a rotation cycle measurement section for measuring a rotation cycle of the optical disc, and

a cycle comparison section for determining whether or not the optical spot is positioned on the bar code area of the optical disc based on the maximum cycle detected by the maximum cycle detection section and the rotation cycle measured by the rotation cycle measurement section.

10. An optical disc apparatus according to claim 1, wherein the bar code area determination section determines whether or not the optical spot is positioned on the bar code area of the optical disc in a prescribed time period which corresponds to at least 11/12 of a rotation of the optical disc.

11. An optical disc apparatus according to claim 1, wherein the bar code area determination section includes:

a smoothing section for outputting a smoothed signal obtained by smoothing the signal output by the optical head; and

a comparison section for comparing a time period in which the smoothed signal generated by the smoothing section changes by at least a prescribed level, with a prescribed time period, so as to determine whether or not the optical spot is positioned on the bar code area of the optical disc.

12. An optical disc apparatus according to claim 1, wherein the bar code area determination section includes:

an amplitude signal generation section for generating an amplitude signal from the signal output by

the optical head; and

a comparison section for comparing a time period in which the amplitude signal generated by the amplitude signal generation section changes by at least a prescribed level, with a prescribed time period, so as to determine whether or not the optical spot is positioned on the bar code area of the optical disc.

13. An optical disc apparatus according to claim 1, wherein the bar code area has bar code data recorded therein,

the optical disc apparatus further comprising a bar code data reproduction section for reproducing the bar code data in accordance with the signal output by the optical head when the optical spot is determined to be positioned on the bar code area, and a bar code data storage section for storing the bar code data reproduced by the bar code data reproduction section.

14. An optical disc apparatus according to claim 1, further comprising:

a position measuring section for measuring a position to which the optical spot has moved by the control section controlling the optical head; and

a position storage section for storing the position at which the optical spot is determined to be positioned on the bar code area of the optical disc.